TITLE 326 AIR POLLUTION CONTROL BOARD
LSA Document #99-125

SUMMARY/RESPONSE TO COMMENTS RECEIVED AT THE FIRST PUBLIC HEARING

On May 3, 2000, the air pollution control board (board) conducted the first public hearing/board meeting concerning the development of a new rule 326 IAC 20-25. Comments were made by the following parties:

Mark Aker, Aker Plastics	(AKP)
Kurt Anderson, Monaco Coach Corporation	(MCC)
Alice Boomhower, BP Amoco Chemical	(BPA)
Jeff Bullock, Magnum Environmental Technologies	(MET)
David A. Hill, AOC Resins	(AOC)
Van Kessler, Godfrey Marine	(GM)
John Schweitzer, Composite Fabricators Association	(CFA)

Following is a summary of the comments received and IDEM's responses thereto.

Comment: How were the styrene contents derived in Table I, are they correct, and is there any chance to change some of them? (AKP)

Response: Some of the hazardous air pollutant (HAP) monomer contents proposed in Table I are based on information issued by U. S. EPA in October 1999 and is considered to represent the maximum achievable control technology (MACT) or point value system for some categories of operations. A point value system combines specific emission reduction techniques into a numerical standard. Other proposed monomer limits are based on information provided by composite fabricators and raw material suppliers. IDEM believes the styrene monomer content limits represent a means of reducing styrene emissions but is willing to have further discussions with interested parties and consider new information prior to finalizing Table 1.

Comment: Styrene content is a major part for the adhesion of the polyester resin to acrylic thermoformed sheet. It is actually more of a chemical bond than two different plastics. Is it possible to raise the styrene content to forty-six percent (46%) or maybe forty-eight percent (48%)? That percent would be in line with what we actually do. (AKP)

Response: The forty-two percent (42%) styrene content that is in the proposed rule was suggested by the Composites Fabricator Association. IDEM will reevaluate this product category in consultation with CFA and all interested parties.

Comment: Thanks to IDEM's staff for listening to the comments offered over the last year in drafting this rule, which seems to be very reasonable and very effective, and to those in the industry who stepped forth to participate in the rulemaking process. However, there are seven (7) issues that need clarification. (MCC)

Response: Comment noted.

Comment: If the proposed rule is going to be in Article 20, Article 8 should be amended as originally presented in the published draft rule, and state that companies with requirements under Article 20, federal maximum achievable control technologies (MACTs), will fulfill the requirements under 326 IAC 8-1-6, best available control technology (BACT), or, at a minimum, IDEM should prepare a nonrule policy that confirms this policy. (MCC)

Response: BACT must be determined on a case by case basis according to the state implementation plan for ozone attainment. This rule is not intended to be an Article 8, ozone control rule, but a rule to address emissions of styrene, a hazardous air pollutant. Regardless of whether the rule is in Article 8 or Article 20, new construction will require a case-by-case MACT determination and a case-by-case BACT determination. Furthermore, under the state implementation plan for ozone, BACT must always be determined for new sources on a case-by-case basis. However, as stated in the response to comments from the Second Comment Period, recent case by case BACT and MACT analyses have resulted in technologies that are deemed effective and reasonable for the industry and those technologies have been incorporated into the proposed rule.

Comment: Under section 2(32) the number is repeated twice. (MCC)

Response: The definitions will be renumbered.

Comment: Under section 5(a), the terms "process controls", "post process controls", and "add-on controls" should be described and added to the definition section. It is hoped that it is not IDEM's intent to require companies to conduct confirmatory testing on the Composite Fabricators Association (CFA) or EPA emission factors. Is testing going to be limited to add-on controls? (MCC)

Response: "Add-on emission controls" will be changed to "air pollution control equipment" which is defined at 3226 IAC 1-2-3. "Process controls" and "post process controls" will be deleted from section 5(a). It is not IDEM's intent to require companies to conduct confirmatory testing on the CFA or EPA emission factors, but that testing only be required when a source chooses to comply using emission control systems whose capture, collection and destruction efficiencies or a combination of technologies need to be determined on a site specific basis.

Comment: Under section 5(c)(1), compliance certification should include a manufacturer's material safety data sheet (MSDS). Most manufacturers do not provide certified product data sheets. (MCC)

Response: Manufacturer's material safety data sheet will be added to section (5)(c) in addition to certified product sheets.

Comment: Subdivision 6(a)(2) is poorly worded. Either add a clause (G) that says "none of the above" or delete the subdivision. (MCC)

Response: IDEM agrees that the wording can be improved and suggests the following: "Records shall be maintained and shall be complete and sufficient to establish compliance with the requirements of section 3 of this rule. Examples of such records include, but are not limited to: invoices, material safety data sheets (MSDS), calculations or any other records necessary to confirm compliance."

Comment: The paragraph following subdivision 6(a)(2) states when ranges are supplied on MSDS sheets, the highest range must be used for documenting compliance. The highest value of the range is acceptable for documenting compliance with HAP specific limits, but an average would be better for annual emission limits. (MCC)

Response: This proposed rule imposes no annual emission limits and IDEM believes the paragraph following subdivision 6(a)(2) should not be changed. IDEM policy is to use the maximum value in a range of emission factors when calculating emissions to determine rule applicability, to establish emission limits, and to determine compliance. If a source wishes to use a value other than the maximum in a range, justification for source specific values must be produced. Certified HAP monomer content limits would take precedence over ranges from a MSDS. Site specific testing to determine VOC or HAP content of materials must be performed according to testing requirements in Section 5 of the draft rule.

Comment: The description of vacuum bagging in item 3(h) (2)(B)(iii) is not consistent with the definition in subdivison 2(32) and is not even physically possible. (MCC)

Response: IDEM agrees and will delete the phrase "where resin is applied without exposure to the air."

Comment: Corrosion resins typically have higher styrene contents than conventional general purpose resins. The ability to change styrene content in corrosion resins is limited. Product properties are dictated by the chemical components of the resins and manipulating chemistry alters the properties of the final product. Reducing styrene content reduces corrosion resistance and other properties in ways that would harm the quality of the final product.

Several other states have considered styrene content limits for composite resins and each developed their own corrosion category. In all of the three (3) states that have rules, the styrene content limit for corrosion resins is forty-eight percent (48%) like it is for boats in the IDEM rule. In the IDEM rule, the limit is thirty-eight percent (38%) for other types of products. (AOC)(BPA)(CFA)

Comment: Why is the styrene content for corrosion resistant resin in Table I and II different? (AKP)

Response: The corrosion resistant resin HAP content limits in Table I and Table II were derived from U. S. EPA's point value system and information submitted in response to the Second Notice of Comment period. According to the U. S. EPA point value system, applying a resin with HAP monomer content of forty-eight percent (48%) using nonatomized application technology is equivalent to applying a resin with thirty-eight percent (38%) HAP content with atomized application technology. IDEM reasoned that averaging would allow fabricators other than boat manufacturers to use higher monomer content corrosion resistant resins with flowcoaters. IDEM recognizes that a different form of the standard for corrosion resistant resin is acceptable and preferred by some fabricators. Sources using manual application would also want to use a forty-eight percent (48%) HAP monomer content resin. IDEM is amenable to changing the corrosion resistant standard to forty-eight percent (48%) HAP monomer content with nonatomized mechanical application. IDEM will work with those interested in this issue to ensure that fabricators can make a quality product and reduce styrene emissions at the same time.

Comment: Definition #13 for flow coater added the phrase "no air supplied to the nozzle". With the advancements of flow coat technology and the reduction of the velocity, our company has made great advancements in reducing emissions during the spray application. Magnum Environmental Technologies uses two small air ports at the nozzle which rolls any misting back into the spray pattern. This reduces the emissions considerably. With the reduction of the velocity, there's much less air entrainment, so we use the steering currents to steer the misting and to get better catalyzation. By doing this, it produces a faster cure, which will also reduce emissions during the cure time.(MET)

Response: The definition of flowcoater will be deleted and IDEM will use definitions for atomized and nonatomized application based on definitions from the draft boat manufacturing National Emission Standards for Hazardous Air Pollutants (NESHAP) (posted on Internet on June 16, 2000). "Atomized application technology" means an application technology in which the resin or gel coat leaves the application equipment and breaks into droplets or an aerosol as it travels from the application equipment to the surface of the part. "Nonatomized application technology" means any application technology in which the resin or gel coat is not broken into droplets or an aerosol as it travels from the application equipment to the surface of the part.

Comment: The number of meetings in Elkhart on the rule were appreciated. Under Table II in section 3, the styrene content for tooling is forty-three percent (43%) with flow coat application technology. It may not be possible to buy tooling resin that will do a good job at forty-three percent (43%) or less styrene. It is a de minimis amount compared to production resins. This could create the need to build additional tools because these tools may not hold up as well as tools with a slightly higher styrene content. (GM)

Response: The average monomer content and application method for the watercraft category was submitted by the National Marine Manufacturers Association. However, the draft boat manufacturing NESHAP list one (1) way to comply with the HAP emission limit as a weighted average HAP content for nonatomized tooling resin operations as thirty-nine percent (39%). IDEM believes that forty-three percent (43%) with no restriction on application technology is appropriate until boat manufacturers must comply with the final MACT.

Comment: Specialty products are those where the chemistry of the product really matters in determining whether the product is suitable for the end use. Specialty products consume less than 20 percent of the resin used in the composites industry which includes corrosion resistant products. The tool, or mold, itself is a corrosion resistant product. It has to have very high dimensional stability and heat resistance because if the mold changes its shape during use the product will be of the wrong shape. CFA hopes to work with IDEM to gain provision under the rule to allow fabricators to use up to forty-eight percent (48%) hazardous air pollutant (HAP) content for specialty products and use flowcoaters where possible. However, filament winding and manual applications do not have mechanical application technology to offset a higher HAP content. We propose to require the use of flowcoaters with a higher HAP limit, which for mechanical amounts to the same thing, but allow the fabricators to use the resins they need for manual application and filament winding. (CFA)

Response: The filament winding process is not included in this rule but will be controlled by the federal MACT standard. IDEM understands the special problems associated with the monomer content for products with specifications for high strength, heat resistance, and flame resistance and will work with those interested in the issue to resolve concerns.